CLAIMS

1. A method of operating a plurality of disks having units of storage allocation, comprising:

providing a first tier of at least one disk, the first tier storing at least one popular unit;

providing a second tier of at least one disk, the second tier storing at least one unpopular unit;

powering on at least one first tier disk;

powering down the second tier;

determining whether a request for a unit requires processing on the first tier or second tier;

accessing the requested unit if the requested unit requires processing on the first tier; and

powering on a second tier disk to copy the requested unit from the second tier disk to a first tier disk, if the requested unit is stored on the second tier.

2. The method of claim 1 further comprising:

determining if at least one first tier disk has adequate space to process a requested unit;

copying the requested unit from the second tier disk to the first tier disk if at least one first tier disk has adequate space;

creating the requested unit on the first tier; and

generating adequate space on the first tier.

3. The method of claim 2 further comprising:
determining if a first tier unit has become unpopular; and
transferring the unpopular first tier unit to a second tier disk.

4. The method of claim 3 further comprising:
determining if the unpopular first tier unit has been modified; and
transferring only modified unpopular first tier units to the second tier.

5. The method of claim 1 wherein providing the first tier comprises assigning a portion of the disks to the first tier.

6. The method of claim 1 wherein the first tier disks comprise high-performance hard drives.

7. The method of claim 1 wherein the second tier disks comprise low-power hard drives.

8. The method of claim 1 wherein the unit comprises at least one member selected from a group consisting of: a file, a portion of a file, a file system block, a combination of files, and a suitable subdivision of information.

9. The method of claim 1 wherein the popular unit comprises a unit meeting or exceeding a condition limit, and the unpopular unit comprises a unit not meeting the condition limit.

10. The method of claim 8 wherein the condition limit is determined based on usage factors.

11. A computer usable medium including a program for operating a plurality of disks having units of storage allocation, comprising:

computer readable program code for providing a first tier of at least one disk, the first tier storing at least one popular unit;

computer readable program code for providing a second tier of at least one disk, the second tier storing at least one unpopular unit;

computer readable program code for powering on at least one first tier disk;

computer readable program code for powering down the second tier;

computer readable program code for determining whether a request for a unit requires processing on the first tier or second tier;

computer readable program code for accessing the requested unit if the requested unit requires processing on the first tier; and

computer readable program code for powering on a second tier disk to copy the requested unit from the second tier disk to a first tier disk, if the requested unit is stored on the second tier.

12. The computer readable program code of claim 11 further comprising:

computer readable program code for determining if at least one first tier disk has adequate space to process a requested unit;

computer readable program code for copying the requested unit from the second tier disk to the first tier disk if at least one first tier disk has adequate space;

computer readable program code for creating the requested unit on the first tier; and

computer readable program code for generating adequate space on the first tier.

13. The computer readable program code of claim 12 further comprising:

computer readable program code for determining if a first tier unit has become unpopular; and

computer readable program code for transferring the unpopular first tier unit to a second tier disk.

14. The computer readable program code of claim 13 further comprising:

computer readable program code for determining if the unpopular first tier unit has been modified; and

computer readable program code for transferring only modified unpopular first tier units to the second tier.

15. The computer readable program code of claim 11 wherein providing the first tier comprises assigning a portion of the disks to the first tier.

16. The computer readable program code of claim 11 wherein the first tier disks comprise high-performance hard drives.

17. The computer readable program code of claim 11 wherein the second tier disks comprise low-power hard drives.

18. The computer readable program code of claim 11 wherein the unit comprises at least one member selected from a group consisting of: a file, a portion of a file, a file system block, a combination of files, and a suitable subdivision of information.

19. The computer readable program code of claim 11 wherein the popular unit comprises a unit meeting or exceeding a condition limit, and the unpopular unit comprises a unit not meeting the condition limit.

20. The computer readable program code of claim 18 wherein the condition limit is determined based on usage factors.

21. A system for operating a plurality of disks having units of storage allocation, comprising:

means for providing a first tier of at least one disk, the first tier storing at least one popular unit;

means for providing a second tier of at least one disk, the second tier storing at least one unpopular unit;

means for powering on at least one first tier disk;

means for powering down the second tier;

means for determining whether a request fir a unit requires processing on the first tier or second tier;

means for accessing the requested unit if the requested unit requires processing on the first tier; and

means for powering on a second tier disk to copy the requested unit from the second tier disk to a first tier disk, if the requested unit is stored on the second tier.